

CLAIMS

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1. An apparatus comprising,  
a wireless transceiver coupled to a programmable logic  
circuit, wherein said programmable logic circuit comprises a  
programmable logic device, a processor, and a memory circuit in a  
single integrated circuit (IC) package.
2. The apparatus according to claim 1, wherein said  
single integrated circuit package contains one or more integrated  
circuit dies.
3. The apparatus according to claim 1, wherein said  
integrated circuit comprises a JEDEC standard integrated circuit  
package.
4. The apparatus according to claim 1, wherein said  
wireless transceiver is contained within said package.
5. The apparatus according to claim 1, wherein said  
wireless transceiver communicates using either electromagnetic or  
ultrasonic waves.

6. The apparatus according to claim 5, wherein said electromagnetic waves comprise radio signals or infrared light.

7. The apparatus according to claim 1, wherein said wireless transceiver communicates through a device selected from the group consisting of an antenna, a light emitting/sensitive device, and an ultrasonic transducer.

8. The apparatus according to claim 7, wherein said light emitting/sensitive device comprises an infrared diode or other type or wavelength of light emitting/sensitive diode or transistor.

9. The apparatus according to claim 1, wherein said processor and said programmable logic device are implemented on a single die.

10. The apparatus according to claim 1, wherein said processor is selected from the group consisting of a microprocessor, a micro-controller or other processor, a digital

signal processor, and instructions stored in said memory circuit for configuring said programmable logic circuit as a processor.

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11. The apparatus according to claim 10, wherein said instructions configure said programmable logic device as a device selected from the group consisting of a microprocessor, a microcontroller, and a digital signal processor.

12. The apparatus according to claim 1, wherein said memory circuit comprises one or more non-volatile memory elements.

13. The apparatus according to claim 1, wherein said programmable logic device comprises one or more memory elements.

14. The apparatus according to claim 13, wherein said memory elements are non-volatile.

15. A method for programming a programmable logic device using a wireless link comprising the steps of:

(A) presenting programming signals to a wireless transceiver; and

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(B) programming a programmable logic circuit in response to said programming signals, wherein said programmable logic circuit comprises a programmable logic device, a memory circuit, and a processor in a single integrated circuit package.

16. The method according to claim 15, wherein said wireless transceiver is contained in said integrated circuit package.

17. The method according to claim 15, further comprising the steps of:

(C) during a first bootup, configuring said programmable logic device as said processor in response to instructions stored in said memory circuit; and

(D) reprogramming said memory circuit in response to said programming signals.

18. An apparatus comprising:

a programmable logic device;

a memory circuit;

a processor; and

5           a wireless transceiver, wherein said programmable logic  
device, said memory circuit, and said processor are encased in a  
single integrated circuit (IC) package.

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19. The apparatus according to claim 18, wherein said  
wireless transceiver is contained within said integrated circuit  
package.

20. The apparatus according to claim 18, further  
comprising a transducer coupled to said wireless transceiver.